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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,862	10/31/2003	Steven Hubbard	GEPL.P-092	2861
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Larson & Anderson, LLC			ALEXANDER, LYLE	
re: lexan				
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			04/24/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/605,862	<b>Applicant(s)</b> HUBBARD ET AL.	
	<b>Examiner</b> Lyle A. Alexander	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 24-37, 40-60, 63-69 and 71 is/are pending in the application.
- 4a) Of the above claim(s) 47-60, 63-69 and 71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-32, 34-37 and 40-46 is/are rejected.
- 7) ☒ Claim(s) 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 24-46, drawn to a polymeric pellets having a tagged material dispersed therein, classified in class 546, subclass 37.
- II. Claims 69 and 71, drawn to a perylene, classified in class 436, subclass 56.
- III. Claims 47-60 and 63-68, drawn to a molded product using a process of molding at a temperature greater than 220°C, classified in class 264.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II,III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination I has separate utility as beads whereas groups II-III are related to materials that can be made into sheets. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a

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claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination II has separate utility such as data storage medium. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after

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the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Mr. Anderson on 4/22/09 a provisional election was made with traverse to prosecute the invention of group I, claims 24-37, 40-46. Affirmation of this election must be made by applicant in replying to this Office action. Claims 47-60, 63-69 and 71 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 is not clear what compound is intended. A search of the patent data based did not match with the claimed dye. Clarification could be achieved by Applicant submitting a reference that teaches the claimed dye.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 24-29, 32, 35-37 and 40-46 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Tanaka et al. (USP 6,219,329).

Tanaka et al. teach in column 3 lines 28-45 teach a plastic disk body made from a pelleted polycarbonate resin contains a predetermined concentration of perylene dye. Claim 1 lines 28-31 teach the perylene dye is in the concentration of 0.01-1.0 percent weight of the pelleted polycarbonate matrix. %. This has been read on the claimed "polymeric pellet comprising a polycarbonate having dispersed therein a tagging material ...". The instant claims are directed to a polycarbonate composition that is indistinguishable from Tanaka et al. It would have been inherent Tanaka et al.'s taught composition would have had all of the claimed thermal properties and excitation wavelength ranges. With respect to claim 32, in the absence of better defining what

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compounds are intended by an “anti-stokes shift dye”, this dye has read the taught dyes. Claims 40-46 appear to be directed to methods of making the composition and method of use and do not add limitations to further describe the composition. The Office maintains Tanaka et al. is indistinguishable from the claimed composition and meets all of the above pending claims.

Claims 24-29, 32, 35-37 and 40-46 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Sakamoto et al. (USP 6,686,041).

Sakamoto et al. teach in claims 8-10 a polycarbonate pellet that has a dye, such as perylene in a concentration of 0.005 to 10 weight %. This has been read on the claimed “polymeric pellet comprising a polycarbonate having dispersed therein a tagging material ...”. The instant claims are directed to a polycarbonate composition that is fully anticipated by Sakamoto et al. et al. and it would have been inherent the taught composition would have had the claimed thermal properties and excitation wavelength ranges. With respect to claim 32, in the absence of better defining what compounds are intended by an “anti-stokes shift dye”, this dye has read the taught dyes. Claims 40-46 appear to be directed to methods of making the composition and method of use and do not add limitations to further describe the composition. The Office maintains Tanaka et al. is indistinguishable from the claimed composition and meets all of the above pending claims.

Claims 24-29, 31-32, 34-37 and 40-46 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Schottland et al. (USP 6,893,147).



Schottland et al. teach a polycarbonate pellet containing inorganic nano-colorants. Column 4 lines 15-29 teach the fluorescent colorants can be perylene dyes, lanthanide complexes such as Europium and other Stokes shift dyes. Column 7 lines 1-13 teach it is advantageous to use pellets of polycarbonate and mix the dye in a concentration of between less than 1% and 0.0001 % by weight (see claims 3-8). but greater than claims 8-10 a polycarbonate pellet that has a dye, such as perylene in a concentration of 0.005 to 10 weight %. This has been read on the claimed "polymeric pellet comprising a polycarbonate having dispersed therein a tagging material ...". The instant claims are directed to a polycarbonate composition that is fully anticipated by Schottland et al. et al. et al. and it would have been inherent the taught composition would have had the claimed thermal properties and excitation wavelength ranges. Claims 40-46 appear to be directed to methods of making the composition and method of use and do not add limitations to further describe the composition. The Office maintains Tanaka et al. is indistinguishable from the claimed composition and meets all of the above pending claims.

***Allowable Subject Matter***

Claims 33 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art fails to teach or suggest the claimed composition comprising the claimed luminescent nanoparticles.

### ***Response to Arguments***

Applicant's arguments filed 2/13/09 have been fully considered but they are not persuasive.

The Office regrets the typographical error that claim 69 was considered pending in the 12/4/08 Office action. However, this issue is moot in light of the above restriction requirement.

Applicants' remarks concerning the 35 USC 112 were substantially convincing and all that remains is the above 35 USC 112 second paragraph rejection of claim 30.

Applicants' amendments have obviated the provisional obviousness type of double patenting rejections.

Applicants amendments that specify the polymer compound is in the form of a pellet has overcome the 35 USC 102 rejections over Pavelka et al. and Potyrailo et al.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A. Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lyle A Alexander/  
Primary Examiner, Art Unit 1797

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